Upper Oconee Regional Water Planning Council
Update on Regional Water Plan Implementation Seed Grant

Flow-dependent benefits and values of water resources in the Upper Oconee Region
Georgia Water Planning and Policy Center, Albany State University
December 1, 2021
(Prepared by Dr. Gail Cowie)

We are collecting basin-specific information on the benefits that people gain from water resources in the Oconee basin. The information is being compiled for use by the Upper Oconee Regional Water Planning Council in review and revision of their regional water plan and by EPD in modeling of surface water availability.

We are drawing on two sources of information: water users from multiple sectors across the basin and available scientific and technical literature. Our results will describe range of benefits that people across the Oconee River Basin receive from streams, rivers, and lakes in their area and include information on how those benefits change with changes in streamflow and lake levels.

We've completed the first round of stakeholder input and are currently compiling the results. Invitations to participate in the project were emailed to 140 stakeholders across the basin and follow-up phone calls made to those who did not respond to the emails. A total of 48 people contributed information through an interactive map, three online meetings, phone interviews and email. A draft report on available scientific and technical literature has also been completed.

In December and January, we will finish compiling results from the first round of stakeholder input and prepare for the second round of stakeholder input. In addition, the draft report on scientific and technical information will be revised to fill any gaps highlighted by the stakeholder input. We expect to hold the second round of stakeholder meetings in late January or early February 2022. Final products will be provided to EPD and the Upper Oconee Water Planning Council in the Spring of 2022.

Project Title: An ArcGIS Toolbox for Automating Digitization of Septic Systems in Jackson County, Georgia.
By: Dr. Nandita Gaur

This seed grant proposed to create an ArcGIS toolbox that automates the delineation of septic systems and determine their ages using minimal resources and data such as digitized sewer pipes, roads and parcel data available to counties. While this objective serves the Upper Oconee Regional Water Planning Council directly, it will also provide a means to other counties and planning agencies to develop a dataset that helps them make more informed plans for resource allocation towards managing decentralized wastewater. The seed grant has completed 6 quarters. It was also proposed to validate this toolbox using septic system data from 200 sub-divisions within the county. We have completed scanning the septic permits for 200 sub-divisions as was proposed in the seed grant. We are working on developing the ArcGIS toolbox currently. As part of that effort, we are working with Jackson County who has provided UGA with precise geocoded addresses and the scanned permits are being attached to the geocoded addresses to serve as the validation dataset for the ArcGIS toolbox. Jackson county has also provided aerial imagery from 2001 and 2020 to help extract buildings by performing a supervised classification of the images for implementation into the ArcGIS algorithm. We are classifying this imagery to date the septic systems and have achieved good results but further improvement is needed to get the best building extraction possible. The results will soon be applied to the algorithm for the automated toolbox in ArcGIS to detect septic systems' density and ages within the county.